

Amendments to the Specification:

Please insert the following paragraph at page 1, after the title with the following paragraph:

--CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority under 35 U.S.C. §119(a) from German Patent Application No. 103 15 021.8, filed April 2, 2003, and from German Patent Application No. 103 22 482.3, filed May 19, 2003. --

Please insert the following heading at page 1, line 3:

--FIELD OF THE INVENTION--

Please insert the following heading at page 1, line 9:

--BACKGROUND--

Please insert the following heading at page 1, line 29:

--SUMMARY--

Please replace the paragraph beginning at page 2, line 16 with the following amended paragraph:

-- The coolant may preferably be supplied and removed via conduits implemented in at least some of the insulating material struts (~~Claim 2~~).--

Please replace the paragraph beginning at page 2, line 20 with the following amended paragraph:

-- These insulating material struts may be implemented as tubes led through the outer conductor toward the outside (~~Claim 3~~). Typically, three or four insulating material struts per

radial plane, which are offset by 120° or by 90°, respectively, suffice. As a function of the coolant flow necessary, it may be sufficient to use only a part of these insulating material struts for supplying and removing the coolant. It is then to be ensured through suitable constructive implementation of the insulating material struts that no additional distortions of the HF field arise around the circumference.--

Please replace the paragraph beginning at page 2, line 32 and ending at page 3, line 2 with the following amended paragraph:

-- Alternatively, the insulating material struts may also be implemented as hollow discs having radial conduits (~~Claim 4~~), in order to divide the line into sections which are sealed longitudinally, for example.--

Please replace the paragraph beginning at page 3, line 4 with the following amended paragraph:

-- The conduits of the insulating material struts preferably discharge into a chamber in an inner conductor connecting element at the end of the tubular inner conductor (~~Claim 5~~). The inner conductor connecting element simultaneously forms the bearing for the particular end of the tubular inner conductor.--

Please replace the paragraph beginning at page 3, line 11 with the following amended paragraph:

-- A preferred embodiment of the coaxial line is distinguished in that a tube of smaller diameter, which is sealed on its face on both ends, is positioned coaxially in the tubular inner conductor and the annular space between this tube and the tubular inner conductor communicates with the conduits in the insulating material struts (~~Claim 6~~). The coolant then only flows through the annular gap or annular space between the tubular inner conductor and the tube of smaller

diameter, which is enclosed by the inner conductor and expediently also mounted at its ends on the relevant inner conductor connecting elements. If the annular cross-section is adequately dimensioned, the cooling effect remains practically unchanged, while simultaneously having a significantly lower weight of the line and a lower complexity of the secondary assemblies necessary for coolant circulation.--

Please replace the paragraph beginning at page 3, line 28 with the following amended paragraph:

-- The face of the tube is expediently sealed by a flange implemented on the inner conductor connecting element (~~Claim 7~~).--

Please replace the paragraph beginning at page 3, line 32 and ending at page 4, line 5 with the following amended paragraph:

-- Alternatively, the face of the tube may also be sealed via flanges which are mounted on the particular inner conductor connecting element so they float axially and radially (~~Claim 8~~). The play in the axial direction in particular avoids the occurrence of axial constraining forces, whether they are due to manufacturing tolerances or whether they are due to different heat-dependent length changes of the tube and the tubular inner conductor enclosing it.--

Please replace the paragraph beginning at page 4, line 7 with the following amended paragraph:

-- In addition, the outer circumference of the tube may have centering elements which support it against the inner wall of the tubular inner conductor (~~Claim 9~~). In this way, it is ensured that the cross-section of the annular gap or annular space between the tubular inner conductor and the tube enclosed by it remains constant around the circumference, even if the coaxial line as a whole has a slight curve in the longitudinal direction.--

Please replace the paragraph beginning at page 4, line 16 with the following amended paragraph:

-- The centering elements may be positioned along a spiral, i.e., in a screw shape around the tube (~~Claim 10~~), or even as individual elements spaced apart from one another.--

Please replace the paragraph beginning at page 4, line 20 with the following amended paragraph:

-- Alternatively, the centering elements may include axially running webs (~~Claim 11~~). This is more favorable for flow technology than the positioning along a spiral.--

Please replace the paragraph beginning at page 4, line 24 with the following amended paragraph:

-- In all embodiments, the centering elements may be in one piece with the tube (~~Claim 12~~). This is especially advantageous for manufacturing if the tube is made not of metal, but rather of plastic.--

Please replace the paragraph beginning at page 4, line 29 with the following amended paragraph:

-- Alternatively, the tubular inner conductor may have axial conduits in its mantel which communicate with the conduits in the insulating material struts (~~Claim 13~~). An inner conductor of this type may, for example, be manufactured cost-effectively from aluminum as an extruded profile.--

Please replace the paragraph beginning at page 5, line 1 with the following amended paragraph:

-- In the event of greater length, the coaxial line is made of sections, separately coolable from one another, which are connected to one another electrically and mechanically (~~Claim 14~~).

Please replace the paragraph beginning at page 5, line 6 with the following amended paragraph:

-- In this case, the tubular inner conductors of adjoining sections the line of may be best connected to one another via complementary plug-in connections (~~Claim 15~~).--

Please replace the paragraph beginning at page 5, line 10 with the following amended paragraph:

-- Such a complementary plug-in connection may include a flange plate, which terminates the chamber of the particular inner conductor connecting element, having an axially extending first annular shoulder, which overlaps a second annular shoulder on the flange plate of the adjoining line section and is in turn overlapped to form a contact by a collar of axially extending contact springs, which encloses the second annular shoulder concentrically (~~Claim 16~~). The first annular shoulder forms a kind of plug and the second annular shoulder forms the complementary coupling together with the contact spring collar.--

Please replace the paragraph beginning at page 5, line 22 and ending at page 6, line 2 with the following amended paragraph:

-- The free ends of the contact springs of the contact spring collar advantageously lie in a radial plane which is set back axially in relation to the radial plane containing the face of the second annular shoulder (~~Claim 17~~). In this way, when two line parts are put together, a pre-centering is achieved, in which the first annular shoulder overlaps the second annular shoulder before the face of the first annular shoulder comes to rest under the contact springs. In this way,

damage to the contact springs and therefore contact which is not uniform around the circumference because of alignment errors is avoided, which would both lead to the occurrence of reflections and intermodulation products and result in overheating and possibly combustion of the contact surfaces at the currents to be transmitted, which are several thousand amperes.--

Please replace the paragraph beginning at page 6, line 4 with the following amended paragraph:

-- The flange plates carrying the contacting annular shoulders are expediently screwed onto the associated inner conductor connecting elements (~~Claim 18~~). This makes the refitting of the connection points from plugs to couplings and vice versa easier. Furthermore, the contact spring collar may be manufactured as a single part from the material best suited for this purpose. It is then welded to the flange plate at its root.--

Please replace the paragraph beginning at page 6, line 13 with the following amended paragraph:

-- Since the tubular inner conductor has a significantly higher thermal load than the outer conductor, in spite of cooling, the thermal expansions arising must be taken into consideration. For this purpose, the insulating material struts may be led through the outer conductor so they float in the axial direction (~~Claim 19~~).--

Please replace the paragraph beginning at page 6, line 20 with the following amended paragraph:

-- One possibility for this purpose is for the end of the insulating material strut led through the outer conductor to be enclosed by a guide flange, which is held in a recess of the outer conductor so it floats in the axial direction, is sealed in relation thereto so it is radially elastic, and is in contact therewith so it is radially elastic (~~Claim 20~~). The radially elastic seal

may be produced using O-rings and the radially elastic contact may be implemented using an annular closed contact element, which is wound in a screw shape, a worm contact.--

Please replace the paragraph beginning at page 6, line 31 and ending at page 7, line 7 with the following amended paragraph:

-- Instead of this, the inner end of each of the tubular insulating material struts may be mounted in the inner conductor connecting element and the outer end may be mounted in the outer conductor wall so they are tiltable in an axial plane (~~Claim 21~~). The tiltable mounting may be implemented, for example, through annular beads on the relevant ends of the insulating material struts in connection with counter bearings shaped like spherical caps in the relevant receivers on the inner conductor connecting element and at a bushing through the wall of the outer conductor.--

Please insert the following heading at page 7, line 8:

--BRIEF DESCRIPTION OF THE FIGURES--

Please insert the following heading at page 8, line 19:

--DETAILED DESCRIPTION--